

## LIST OF SEQUENCES

## (1) GENERAL INFORMATION :

## (i) PETITIONER :

(A) NAME : Laboratoire GOËMAR S.A.  
(B) STREET : ZAC de la Madeleine  
(C) CITY : Saint Malo  
(D) COUNTRY : France  
(E) POSTAL CODE : 35400  
(F) TELEPHONE : +33 2 99 21 53 70  
(G) TELEFAX : +33 2 99 82 56 17  
(H) TELEX :

(ii) TITLE OF THE INVENTION : Endofucanases and method using same for preparing fuco-oligosaccharides from fucanes, bacterium producing endofucanases and uses of fuco-oligosaccharides for plant protection

## (iii) NUMBER OF SEQUENCES

4

## (iv) COMPUTER READABLE FORMAT

(A) TYPE OF SUPPORT : Floppy disk  
(B) COMPUTER : IBM PC compatible  
(C) OPERATING SYSTEM : PC-DOS/MS-DOS  
(D) PROGRAM :

## (v) DATA OF THE PRESENT APPLICATION :

NUMBER OF THE APPLICATION  
FILING DATE : September 21 1998

## (2) INFORMATION ON SEQ ID NO : 1 :

## (i) CHARACTERISTIC FEATURES OF THE SEQUENCE :

(A) LENGTH : 1474 nucleotides  
(B) TYPE : nucleotidic sequence  
(C) NUMBER OF STRANDS : double strand  
(D) CONFIGURATION : linear

(ii) TYPE OF MOLECULE : gene of ARN 16S

(iii) HYPOTHETICAL : no

(iv) ANTI-SENS : no

## (v) ORIGIN :

(A) ORGANISM : CNRS, Station Biologique, Laboratoire de  
Biologie cellulaire et moléculaire des algues, 29682  
Roscoff Cedex  
(B) STRAIN : SW5

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## (xi) DESCRIPTION OF THE SEQUENCE: SEQ ID NO: 1:

AGAGTTTGAT	CNTGGCTCAG	GATGAACGCT	AGCGGCAGGC	CTAACACATG	CAAGTCGAGG	060
GGTAGAGAGA	GCTTGCTTTT	CTTGAGACCG	GCGCACGGGT	GCGTAACGCG	TATACAATCT	120
GCCTCTTACT	GCGGGATAGC	CCAGAGAAAT	TTGGATTAAT	ATCGCATAGC	ATAACGACCC	180
CGCATGGGAT	GTTATTAAAG	GTTACGGTAA	GAGATGAGTA	TGCGTTCTAT	TAGCTAGATG	240
GAGTGGTAAC	GGCACACCAT	GGCAACGATA	GATAGGGGCC	CTGAGAGGGG	GATCCCCCAC	300
ACTGGTACTG	AGACACGGAC	CAGACTCCTA	CGGGAGGCAG	CAGTGAGGAA	TATTGGACAA	360
TGGAGGCAAC	TCTGATCCAG	CCATGCCGCG	TGCAGGAAGA	CGGCCCTATG	GGTTGTAAAC	420
TGCTTTTATA	CGGGAAGAAA	CACCGCTACG	TGTAGCCTTT	GACGGTACCG	TAAGAATAAG	480
GATCGGCTAA	CTCCGTGCCA	GCAGCCGCGG	TAATACGGAG	GATCCAAGCG	TTATCCGGAA	540
TCATTGGGTT	TAAAGGGTCC	GTAGTGGATG	ATTAAGTCAG	AGGTGAAATC	CTGCCGCTCA	600
ACGGTAGAAT	TGCCTTTGAT	ACTGGTTATC	TTGAATCAAT	GTGAAGTGGT	TAGAATATGT	660
AGTGTAGCGG	TGAAATGCAT	AGATATTACA	TAGAATACCA	ATTGCGAAGG	CAGATCACTA	720
ACATTGTATT	GACACTGATG	GACGAAAGCG	TGGGGAGCGA	ACAGGATTAG	ATACCCTGGT	780
AGTCCACGCC	GTAAACGATG	GATACTAGCT	GTTCCGATTT	ATCTGAGTGG	CTAAGCGAAA	840
GTGATAAGTA	TCCCACCTGG	GGAGTACGTT	CGCAAGAATG	AAACTCAAAG	GAATTGACGG	900
GGGCCCCGAC	AAGCGGTGGA	GCATGTGGTT	TAATTCGATG	ATACGCGAGG	AACCTTACCA	960
GGGCTTAAAT	GTAGATTGCA	TTAGGTGGAG	ACACTTATTT	CTTCGGACCA	TCTACAAGGT	1020
GCTGCATGGT	TGTCGTCAGC	TCGTGCCGTG	AGGTGTCAGG	TTAAGTCCTA	TAACGAGCGC	1080
AACCCCGGTT	GTTAGTTGCC	AGCGAGTCAT	GTCGGGAACT	CTANCAAGAC	TGCCAGTGCA	1140
AACTGTGAGG	AAGGTGGGGA	TGACGTCAAA	TCATCACGGC	CCTTACGTCC	TGGGCTACAC	1200
ACGTGCTACA	ATGGTAGGGA	CAGAGAGCAG	CCACTGGGCG	ACCAGGAGCG	AATCTATAAA	1260
CCCTATCACA	GTTCCGATCG	GAGTCTGCAA	CTCGACTCCG	TGAAGCTGGA	ATCGCTAGTA	1320
ATCGCATATC	AGCCATGATG	CGGTGAATAC	GTTCCCGGGC	CTTGTACACA	CCGCCCCGTC	1380
AGCCATGGAA	GCTGGGAGTG	CCTGAAGTCC	GTCACCGCAA	GGAGCGGCCT	AGGGTAAAAT	1440
CGGTAAC TAG	GGCTAAGTCG	TAACAAGGTG	TCCG			1474

## (3) INFORMATION ON SEQ ID NO: 2:

## (i) CHARACTERISTIC FEATURES OF THE SEQUENCE :

- (A) LENGTH : 15 amino acids
- (B) TYPE : peptidic sequence
- (C) NUMBER OF STRANDS : simple strand
- (D) CONFIGURATION : linear

## (ii) TYPE OF MOLECULE : protein

## (iii) HYPOTHETICAL : no

## (iv) ANTI-SENS : no

## (v) ORIGIN :

- (A) ORGANISM : CNRS, Station Biologique, Laboratoire de  
Biologie cellulaire et loméculaire des algues, 29682  
Roscoff Cedex
- (B) STRAIN : SW5

## (xi) DESCRIPTION OF SEQUENCE: SEQ ID NO: 1:

Gln	Thr	Ala	Asn	Thr	Thr	Tyr	Gly	Ile	Asn	Thr	Val	Ala	Ser	Met
			5						10					15

## (4) INFORMATION ON SEQ ID NO: 3:

## (i) CHARACTERISTIC FEATURES OF THE SEQUENCE :

- (A) LENGTH : 18 amino acids
- (B) TYPE : peptidic sequence
- (C) NUMBER OF STRANDS : simple strand
- (D) CONFIGURATION : linear

## (ii) TYPE OF MOLECULE : protein

## (xi) DESCRIPTION OF THE SEQUENCE: SEQ ID NO: 3:

Thr Ser Gly Pro Asp Trp Leu Thr Ile Gln Gln Thr Asp Ala Asn Ser  
                                     5                                    10                                    15  
 Gly Lys

## (5) INFORMATION ON SEQ ID NO: 4:

## (i) CHARACTERISTIC FEATURES OF THE SEQUENCE :

- (A) LENGTH : 17 amino acids
- (B) TYPE : peptidic sequence
- (C) NUMBER OF STRANDS : simple strand
- (D) CONFIGURATION : linear

## (ii) TYPE OF MOLECULE : protein

## (xi) DESCRIPTION OF THE SEQUENCE: SEQ ID NO: 4:

Ile Thr Val Asp His Val Ala Gly Phe Thr Asn Leu Trp Asn Gly Ala  
                                     5                                    10                                    15  
 Pro

## (6) INFORMATION ON SEQ ID NO: 5:

## (i) CHARACTERISTIC FEATURES OF THE SEQUENCE :

- (A) LENGTH : 203 base pairs
- (B) TYPE : nucleotidic sequence
- (C) NUMBER OF STRANDS : double strand
- (D) CONFIGURATION : linear

## (ii) TYPE OF MOLECULE : partial gene of the fucanase

## (iii) HYPOTHETICAL : no

## (iv) ANTI-SENS : no

## (v) ORIGIN :

- (A) ORGANISM : CNRS, Station Biologique, Laboratoire de  
 Biologie cellulaire et loméculaire des algues, 29682  
 Roscoff Cedex
- (B) STRAIN : SW5

## (xi) DESCRIPTION OF SEQUENCE: SEQ ID NO: 5:

ATTACGGTTG ATCATGTTGC AGGTTTTACT AATTTGGGTA ATGGAGCACC TGTTTGGTCT	060
TCACCTATAC TTAATCTTAC CGATGGAAAA GGATCATTCG CCTATAATTA TACTTTGCAA	120
TTAGGAACCG ATTATTATGA TTTTGAAGGT GATGCACTTA CTATTACTAA AACATCAGGA	180
CCTGATTGGC TCACCATTCA ACA	203

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## (7) INFORMATION ON SEQ ID NO: 6:

## (i) CHARACTERISTIC FEATURES OF THE SEQUENCE :

- (A) LENGTH : 67 amino acids
- (B) TYPE : proteinic sequence
- (C) NUMBER OF STRANDS : simple strand
- (D) CONFIGURATION : linear

(ii) TYPE OF MOLECULE : protein

(iii) HYPOTHETICAL : no

(iv) ANTI-SENS : no

## (v) ORIGIN :

- (A) ORGANISM : CNRS, Station Biologique, Laboratoire de  
Biologie cellulaire et loméculaire des algues, 29682  
Roscoff Cedex
- (B) STRAIN : SW5

## (xi) DESCRIPTION OF SEQUENCE: SEQ ID NO: 6:

Ile Thr Val Asp His Val Ala Gly Phe Thr Asn Leu Gly Asn Gly	15
Ala Pro Val Trp Ser Ser Pro Ile Leu Asn Leu Thr Asp Gly Lys	30
Gly Ser Phe Ala Tyr Asn Tyr Thr Leu Gln Leu Gly Thr Asp Tyr	45
Tyr Asp Phe Glu Gly Asp Ala Leu Thr Ile Thr Lys Thr Ser Gly	60
Pro Asp Trp Leu Thr Ile Gln	67